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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,365	05/15/2001	James E. Fox	RSW920010038US1	8757

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EXAMINER
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LEWIS, ADAM M

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 12/23/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/855,365

Applicant(s)

FOX ET AL.

Examiner

Adam M. Lewis

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-6, 9-10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaaskelainen, Jr. ("Jaaskelainen", US# 5,710,574) in view of Rosenberg et al. ("Rosenberg", US# 6,219,032).

As per independent claim 1, Jaaskelainen teaches a method of defining a widget displayable by a graphical user interface (GUI), comprising:

triggering an event associated with the widget (Jaaskelainen, Fig. 5B);

responsive to the event, selecting core and perimeter gravitational settings (Jaaskelainen, col. 8, lines 39-49); and

determining an effective force boundary circumscribing the widget as a function of the core and perimeter gravitational settings (Jaaskelainen, col. 8, lines 39-49).

Jaaskelainen fails to teach the limitations of selecting a mass associated with the widget, and consequently determining the force boundary circumscribing the widget as a function of the mass.

Rosenberg teaches a force feedback controlled cursor. The user can control the cursor, and other on screen objects disclosed by several settings and variables. One of those settings includes the mass of the cursor (Rosenberg, col. 35, lines 15-25).

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Rosenberg also teaches the ability to set the gravitational control of on screen objects (Rosenberg, col. 40, lines 60-68).

It would have been obvious to one skilled in the art at the time of invention to use the quantified mass control system of Rosenberg in the widget control system of Jaaskelainen because it would provide the user with a more accurate and precise control over the properties of on screen widgets.

Independent claim 10 is similar in scope to claim 1, and is therefore rejected under similar rationale.

As per claim 3, which is dependent on claim 1, Jaaskelainen further teaches the method of claim 1, wherein the step of triggering includes:

activating a pop-up menu for selecting the mass (Jaaskelainen, col. 7, lines 46-47).

As per claim 4, which is dependent on claim 3, Jaaskelainen further teaches the method of claim 3, further comprising:

using a selection pointer to activate the pop-up menu (Jaaskelainen, col. 7, lines 23-28).

Dependent claims 9 and 13 are similar to claim 4, and is therefore rejected under similar rationale.

As per claim 5, which is dependent on claim 1, Jaaskelainen further teaches the method of claim 1, wherein the step of triggering includes:

selecting the widget with a selection pointer while the widget is being displayed by the GUI (Jaaskelainen, col. 7, lines 48-58); and

clicking a mouse button to activate a pop-up menu for selecting the mass  $m$  (Jaaskelainen, col. 7, lines 46-48).

As per independent claim 6, Jaaskelainen teaches a computer system, comprising:

- a display (Jaaskelainen, Fig. 1);
- a graphical user interface (GUI) presented by the display (Jaaskelainen, Fig. 4);
- a widget, included in the GUI, having a user-selectable gravitational setting (Jaaskelainen, Fig. 5b; col. 8, lines 39-49);

- a selection mechanism permitting an end-user to select a details of the gravitational setting (Jaaskelainen, col. 8, lines 39-49); and

- means for defining an effective force boundary of the widget as a function of the gravitational setting (Jaaskelainen, col. 8, lines 39-49).

Jaaskelainen fails to teach the limitations of selecting a mass associated with the widget, and consequently determining the force boundary circumscribing the widget as a function of the mass.

Rosenberg teaches a force feedback controlled cursor. The user can control the cursor, and other on screen objects disclosed by several settings and variables. One of those settings includes the mass of the cursor (Rosenberg, col. 35, lines 15-25). Rosenberg also teaches the ability to set the gravitational control of on screen objects (Rosenberg, col. 40, lines 60-68).

It would have been obvious to one skilled in the art at the time of invention to use the quantified mass control system of Rosenberg in the widget control system of Jaaskelainen because it would provide the user with a more accurate and precise control over the properties of on screen widgets.

3. Claims 2, 7-8, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaaskelainen and Rosenberg as applied to claims 1, 3-6, 9-10, and 13 above, and further in view of admitted prior art.

As per claim 2, which is dependent on claim 1, the invention of Jaaskelainen and Rosenberg fails to teach the method of claim 1, wherein the step of determining includes:

determining a mass  $M$  associated with a selection pointer displayable by the GUI;  
and

calculating the value  $B = \sqrt{m/M}$ , wherein  $B$  represents the effective force boundary.

However the admitted prior art teaches the well-known gravitational equation of  $f = m/D^2$  (Page 8, lines 18-22). The formula  $B = \sqrt{m/M}$  is easily derived from  $f = m/D^2$  by simple algebra and substitution.

Therefore, it would have been obvious to one skilled in the art at the time of invention to use the equation  $B = \sqrt{m/M}$  to define the force boundary in the gravitational widget system of Jaaskelainen and Rosenberg because it would provide an accurate analog to the physical system of which it intends to simulate, that system being gravity.

Dependent claims 7 and 11 are similar to claim 2, and are therefore rejected under similar rationale.

As per claim 8, which is dependent on claim 7, Jaaskelainen further teaches the computer system of claim 7, further comprising:

means for determining the distance D between the center of the selection pointer and the center of the widget (Jaaskelainen, col. 8, lines 39-49);

comparison means for determining if the magnitude of the value of B is greater than or equal to D (Jaaskelainen, col. 8, lines 39-49); and

means for moving the selection pointer displayed by the GUI relative to the widget, responsive to the comparison means (Jaaskelainen, col. 8, lines 39-49).

Dependent claim 12 is similar to claim 8, and is therefore rejected under similar rationale.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rosenberg et al. (6,028,593) teaches a method and apparatus for providing simulated physical interaction within computer generated environments.

Rosenberg et al. (6,020,876) teaches a force feedback interface with selective disturbance filter.

Bier (5,862,395) teaches customizable user interfaces for programmed computer systems.

Leah et al. (5,808,601) teaches an interactive object selection pointer method and apparatus.

Rosenberg et al. (5,734,373) teaches a method and apparatus for controlling force feedback interface systems utilizing a host computer.

Robertson et al. (5,513,303) teaches moving an object in a three-dimensional workspace.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam M. Lewis whose telephone number is 703-305-0720. The examiner can normally be reached on M-Th 7:00-4:30, Alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L. Kincaid can be reached on 703-308-0640. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*Kristine Kincaid*  
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